

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claims 1-15 (canceled).

Claim 16 (currently amended): ~~The branching filter according to claim 15,~~  
~~wherein~~ A branching filter comprising:

a transmitting filter; and

a receiving filter; wherein

piezoelectric thin film resonators defining the transmitting filter and the receiving filter and including at least one piezoelectric thin film sandwiched between at least one pair of opposed electrodes are arranged in a ladder configuration on an opening or a recess of a substrate, the transmitting filter and the receiving filter being connected to an antenna terminal in parallel;

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter are made of different materials from each other; and

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter have different piezoelectric films.

Claim 17 (previously presented): The branching filter according to claim 16, wherein the piezoelectric film of the piezoelectric thin film resonators defining the transmitting filter includes AlN and the piezoelectric film of the piezoelectric thin film resonators defining the receiving filter includes ZnO.

Claim 18 (currently amended): The branching filter according to claim ~~15~~16,

wherein the material of the electrodes is different between the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter.

Claim 19 (previously presented): The branching filter according to claim 18, wherein the acoustic impedance of the material of the electrodes is different between the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter.

Claim 20 (previously presented): The branching filter according to claim 18, wherein the frequency of the pass band of the receiving filter is higher than the frequency of the pass band of the transmitting filter, and the acoustic impedance of the material of the electrodes defining the receiving filter is higher than the acoustic impedance of the material of the electrodes defining the transmitting filter.

Claim 21 (currently amended): ~~The branching filter according to claim 15,~~  
wherein A branching filter comprising:

a transmitting filter; and

a receiving filter; wherein

piezoelectric thin film resonators defining the transmitting filter and the receiving filter and including at least one piezoelectric thin film sandwiched between at least one pair of opposed electrodes are arranged in a ladder configuration on an opening or a recess of a substrate, the transmitting filter and the receiving filter being connected to an antenna terminal in parallel;

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter are made of different materials from each other; and

the piezoelectric thin film resonators defining the transmitting filter use second harmonic waves and the piezoelectric thin film resonators defining the receiving filter

use fundamental waves.

Claim 22 (previously presented): ~~The branching filter according to claim 15,~~  
~~wherein A branching filter comprising:~~

a transmitting filter; and

a receiving filter; wherein

piezoelectric thin film resonators defining the transmitting filter and the receiving filter and including at least one piezoelectric thin film sandwiched between at least one pair of opposed electrodes are arranged in a ladder configuration on an opening or a recess of a substrate, the transmitting filter and the receiving filter being connected to an antenna terminal in parallel;

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter are made of different materials from each other; and

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter further comprise a different insulating film on the opening or the recess of the substrate.

Claim 23 (previously presented): The branching filter according to claim 22, wherein the insulating film of the piezoelectric thin film resonators defining the receiving filter comprises SiO<sub>2</sub>.

Claim 24 (previously presented): The branching filter according to claim 22, wherein the insulating film of the piezoelectric thin film resonators defining the receiving filter comprises two layers including an SiO<sub>2</sub> layer adjacent to the piezoelectric thin film and an Al<sub>2</sub>O<sub>3</sub> layer adjacent to the SiO<sub>2</sub> layer.

Claim 25 (previously presented): The branching filter according to claim 22, wherein the insulating film of the piezoelectric thin film resonators defining the receiving

filter comprises two layers including an SiO<sub>2</sub> layer adjacent to the piezoelectric thin film and an AlN layer adjacent to the SiO<sub>2</sub> layer.

Claim 26 (previously presented): The branching filter according to claim 22, wherein the insulating film of the piezoelectric thin film resonators defining the transmitting filter comprises two layers including an AlN layer adjacent to the piezoelectric thin film and an SiO<sub>2</sub> layer adjacent to the AlN layer.

Claim 27 (previously presented): The branching filter according to claim 22, wherein the insulating film of the piezoelectric thin film resonators defining the transmitting filter comprises two layers including an Al<sub>2</sub>O<sub>3</sub> layer adjacent to the piezoelectric thin film and an SiO<sub>2</sub> layer adjacent to the Al<sub>2</sub>O<sub>3</sub> layer.

Claim 28 (currently amended): A communication device comprising the branching filter according to claim ~~15~~16.

Claim 29 (canceled).

Claim 30 (currently amended): ~~The branching filter according to claim 29,~~  
wherein A branching filter comprising:  
a transmitting filter; and  
a receiving filter; wherein  
piezoelectric thin film resonators defining the transmitting filter and the receiving  
filter and including at least one piezoelectric thin film sandwiched between at least one  
pair of opposed electrodes are arranged in a ladder configuration on an opening or a  
recess of a substrate, the transmitting filter and the receiving filter being connected to  
an antenna terminal in parallel;  
the piezoelectric thin film resonators defining the transmitting filter and the  
piezoelectric thin film resonators defining the receiving filter use different waves from

each other; and

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter have different piezoelectric films.

Claim 31 (previously presented): The branching filter according to claim 30, wherein the piezoelectric film of the piezoelectric thin film resonators defining the transmitting filter includes AlN and the piezoelectric film of the piezoelectric thin film resonators defining the receiving filter includes ZnO.

Claim 32 (currently amended): The branching filter according to claim ~~29~~30, wherein the material of the electrodes is different between the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter.

Claim 33 (previously presented): The branching filter according to claim 32, wherein the acoustic impedance of the material of the electrodes is different between the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter.

Claim 34 (previously presented): The branching filter according to claim 32, wherein the frequency of the pass band of the receiving filter is higher than the frequency of the pass band of the transmitting filter, and the acoustic impedance of the material of the electrodes defining the receiving filter is higher than the acoustic impedance of the material of the electrodes defining the transmitting filter.

Claim 35 (currently amended): ~~The branching filter according to claim 29,~~  
wherein A branching filter comprising:  
a transmitting filter; and

a receiving filter; wherein

piezoelectric thin film resonators defining the transmitting filter and the receiving filter and including at least one piezoelectric thin film sandwiched between at least one pair of opposed electrodes are arranged in a ladder configuration on an opening or a recess of a substrate, the transmitting filter and the receiving filter being connected to an antenna terminal in parallel;

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter use different waves from each other; and

the piezoelectric thin film resonators defining the transmitting filter use second harmonic waves and the piezoelectric thin film resonators defining the receiving filter use fundamental waves.

Claim 36 (currently amended): ~~The branching filter according to claim 29,~~  
~~wherein~~ A branching filter comprising:

a transmitting filter; and

a receiving filter; wherein

piezoelectric thin film resonators defining the transmitting filter and the receiving filter and including at least one piezoelectric thin film sandwiched between at least one pair of opposed electrodes are arranged in a ladder configuration on an opening or a recess of a substrate, the transmitting filter and the receiving filter being connected to an antenna terminal in parallel;

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter use different waves from each other; and

the piezoelectric thin film resonators defining the transmitting filter and the piezoelectric thin film resonators defining the receiving filter further comprise a different insulating film on the opening or the recess of the substrate.

Claim 37 (previously presented): The branching filter according to claim 36, wherein the insulating film of the piezoelectric thin film resonators defining the receiving filter comprises SiO<sub>2</sub>.

Claim 38 (previously presented): The branching filter according to claim 36, wherein the insulating film of the piezoelectric thin film resonators defining the receiving filter comprises two layers including an SiO<sub>2</sub> layer adjacent to the piezoelectric thin film and an Al<sub>2</sub>O<sub>3</sub> layer adjacent to the SiO<sub>2</sub> layer.

Claim 39 (previously presented): The branching filter according to claim 36, wherein the insulating film of the piezoelectric thin film resonators defining the receiving filter comprises two layers including an SiO<sub>2</sub> layer adjacent to the piezoelectric thin film and an AlN layer adjacent to the SiO<sub>2</sub> layer.

Claim 40 (previously presented): The branching filter according to claim 36, wherein the insulating film of the piezoelectric thin film resonators defining the transmitting filter comprises two layers including an AlN layer adjacent to the piezoelectric thin film and an SiO<sub>2</sub> layer adjacent to the AlN layer.

Claim 41 (previously presented): The branching filter according to claim 36, wherein the insulating film of the piezoelectric thin film resonators defining the transmitting filter comprises two layers including an Al<sub>2</sub>O<sub>3</sub> layer adjacent to the piezoelectric thin film and an SiO<sub>2</sub> layer adjacent to the Al<sub>2</sub>O<sub>3</sub> layer.

Claim 42 (currently amended): A communication device comprising the branching filter according to claim ~~29~~30.